



# **BEWD – Routes Controllers & Views**

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# AGENDA

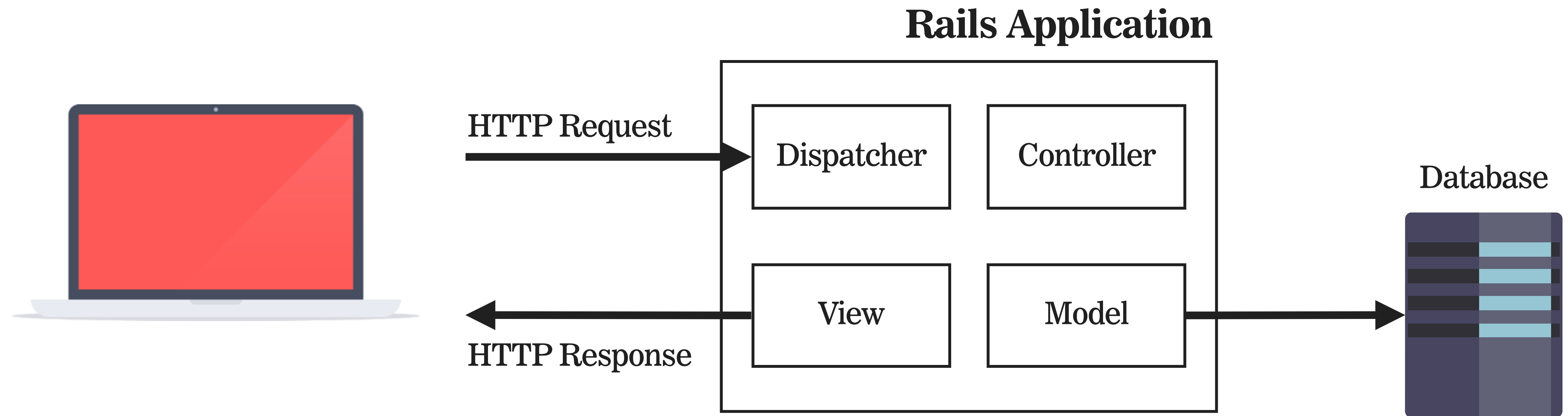
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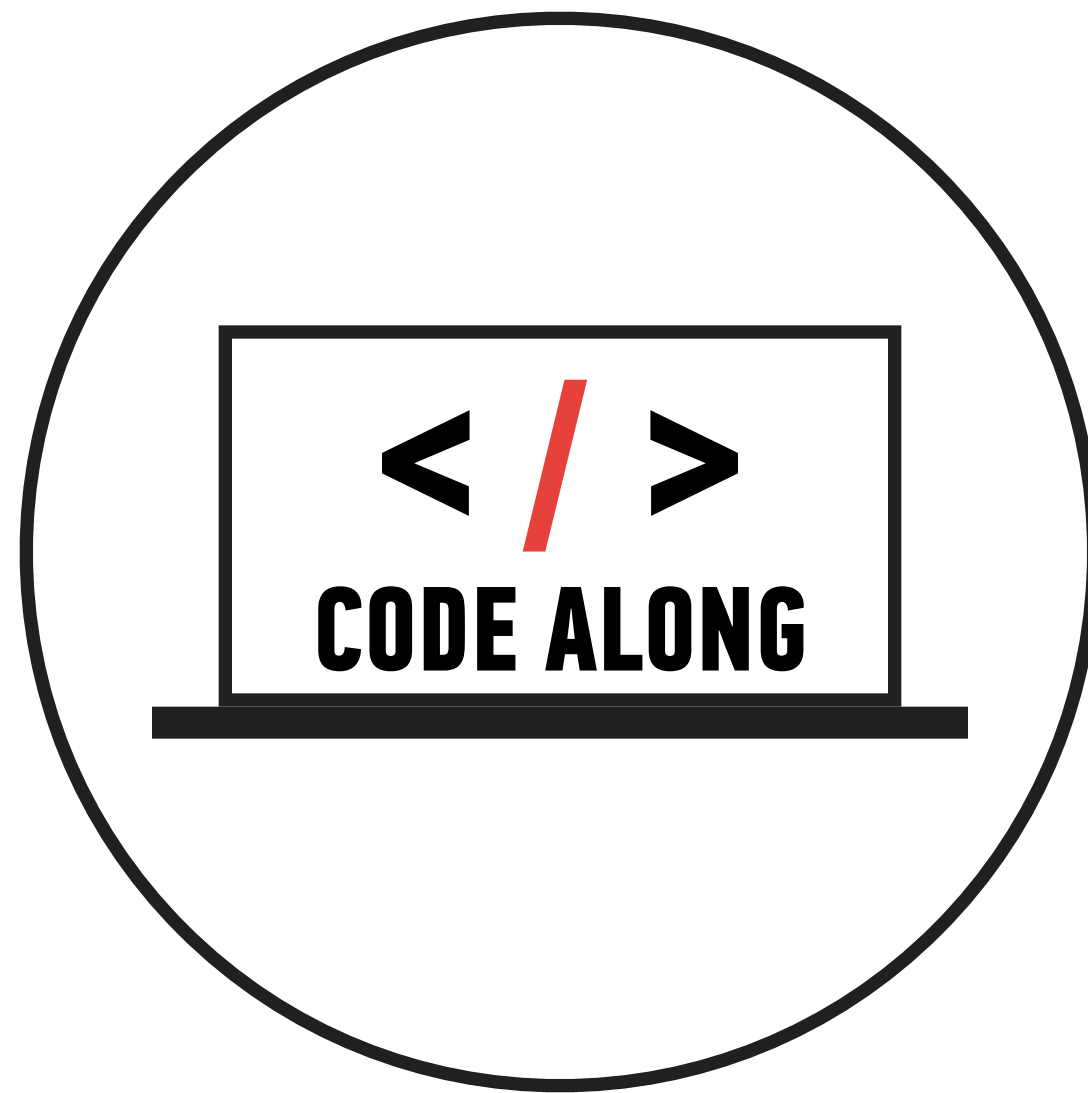
Learning Objective: Understand flow of control in a Rails app.

- » Routes
- » Controllers
- » Views
- » Lab Time

# REQUEST RESPONSE

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Games on Rails

# DISPATCHER

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## ROUTES.RB

- » Located at `config/routes.rb`
- » Maps URLs to your code
- » Current routes: ``$ rake routes``
- » Rails 4 displays current routes at:  
`http://localhost:3000/rails/info/routes`

# ROUTES

## HTTP VERBS

GET, POST, PUT/PATCH, DELETE

HTTP Verb	Path	Action	Used For
GET	/books	index	display all books
GET	/books/new	new	return an HTML form for creating a new book
POST	/books	create	create a new book
GET	/books/:id	show	display a specific book
GET	/books/:id/edit	edit	return an HTML form for editing a book
PUT	/books/:id	update	update a specific book
DELETE	/books/:id	destroy	delete a specific book

# HTTP VERBS

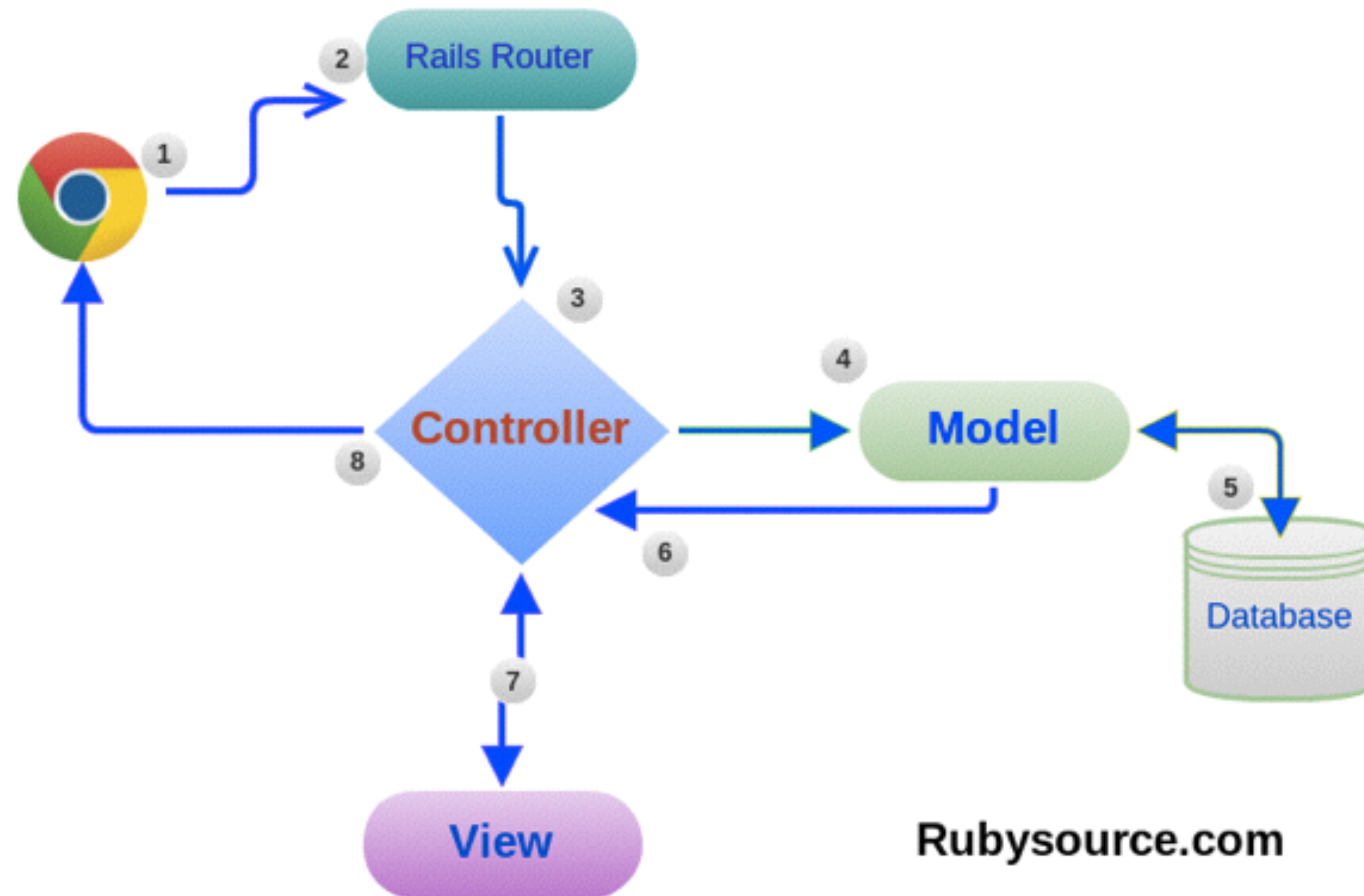
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## HOW THINGS ARE CALLED

- » GET
  - » Visiting a web page
  - » Clicking a link
- » POST
  - » Submitting a form
  - » Creating something new
- » PUT
  - » Updating an existing resource
- » DELETE
  - » Deleting an existing resource!

# MODEL, VIEW CONTROLLER

AKA MVC



Rubysource.com



# MVC

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## ROUTES TO CONTROLLER

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## Controllers:

- » Render a View
- » Redirect to another view

# CONTROLLER

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## **CONTROLLERS ARE OBJECTS!**

- » Responsible for parsing user request
- » They can display some text to the browser, redirect to another path or send an error message.
- » Contains actions (aka functions)

# CONTROLLER

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## METHODS

- » Recall: methods are "def blocks" in Ruby classes.
- » Controllers are also classes, like any other.
- » However, methods inside a controller are not like any other method; they are special (called Controller Actions)
- » A Rails action gets invoked when a route matches to that controller/action combination
- » Note: a private/protected method in a controller is NOT an action (you cannot hit that method via a URL). You can use private/protected methods to have helper methods inside a controller without being actions.

# CONTROLLER

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## PARAMS

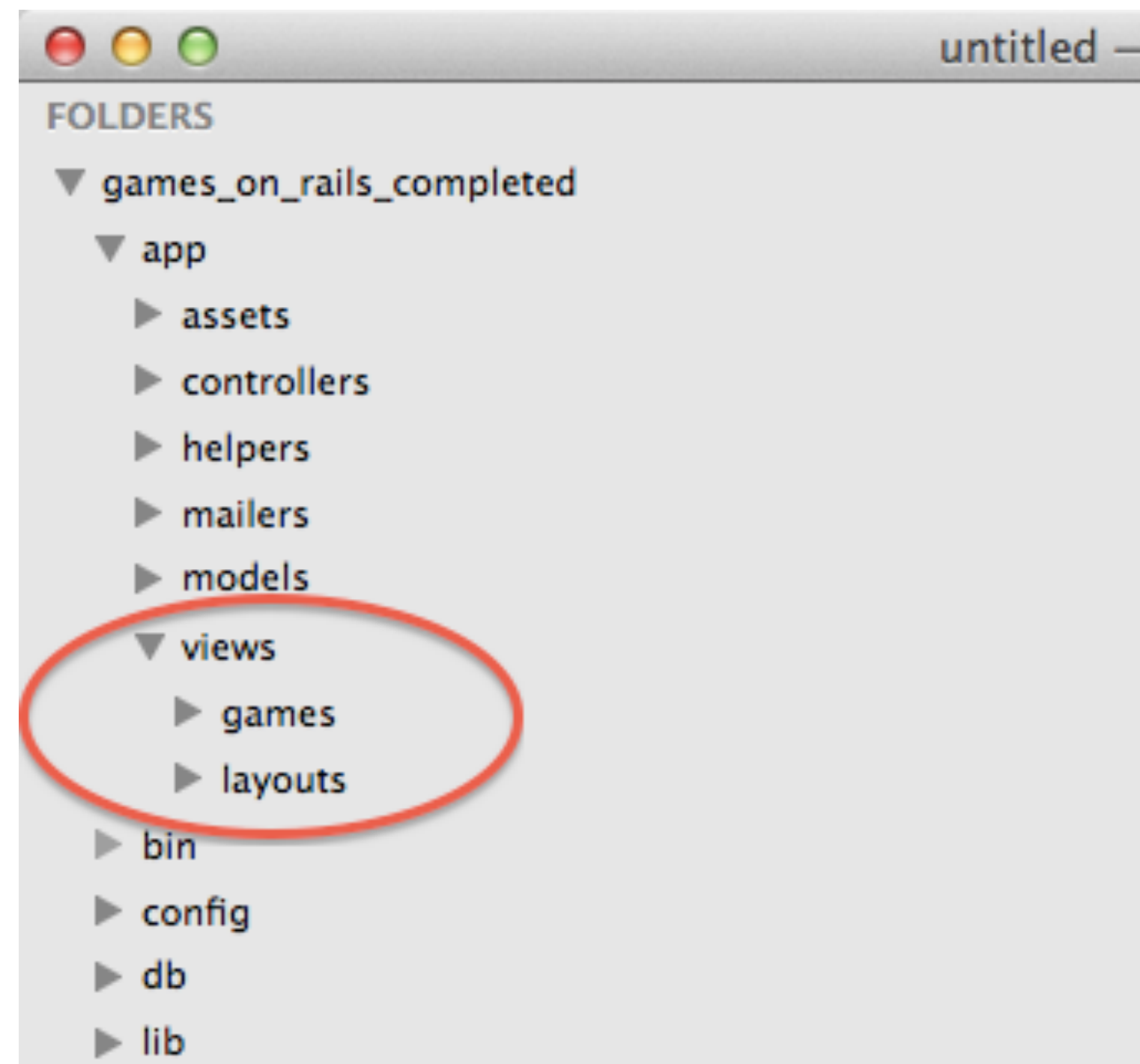
`http://localhost:3000/games/secret_number/7`

» 7 is a param, based on URL convention in the routes

# MVC

## CONTROLLERS TO VIEWS

- » Views can be rendered directly by the controller
  - » Note: Not scalable when HTML file gets more complex
- » By default your controller renders the view named:  
`<controller_name>/<action_name>.html.erb`



# VIEWS

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## HTML.ERB

- » Can write html
- » Can write pure ruby

```
<% @games.each do |game| %>  
  <%= game %>  
<% end %>
```

```
<% 1 + 1 %> // won't show  
<%= 2 + 2 %> // will show!
```

# VIEWS

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## **APPLICATION.HTML.ERB**

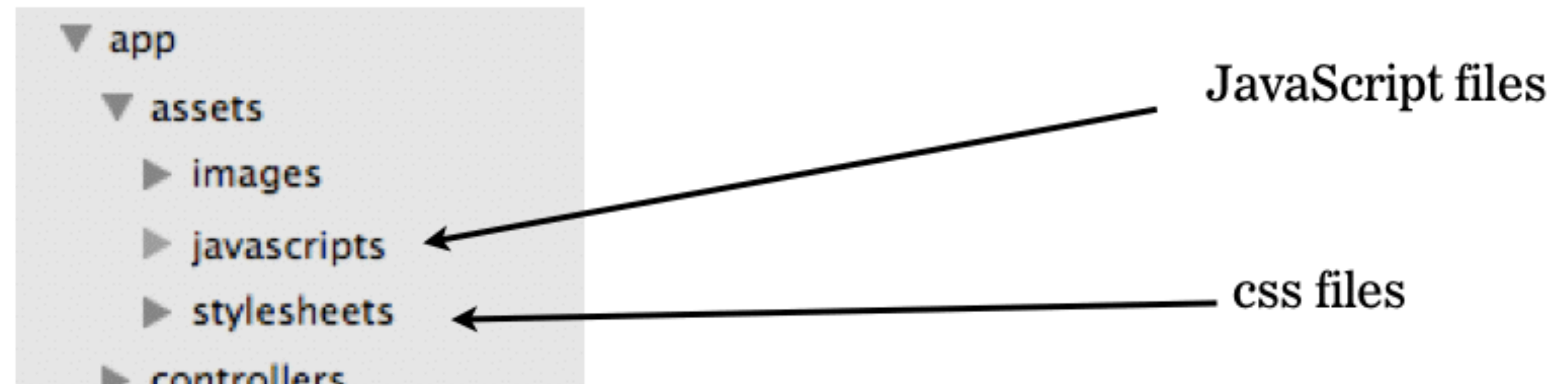
- » All views are wrapped inside **application.html.erb**
- » It loads the assets
- » It sets up the meta tags, titles etc...
- » You can render no layout or a different layout

# VIEWS

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## ASSETS FOLDER

- » Keeps javascript files, stylesheets, and images





# **HOMEWORK**

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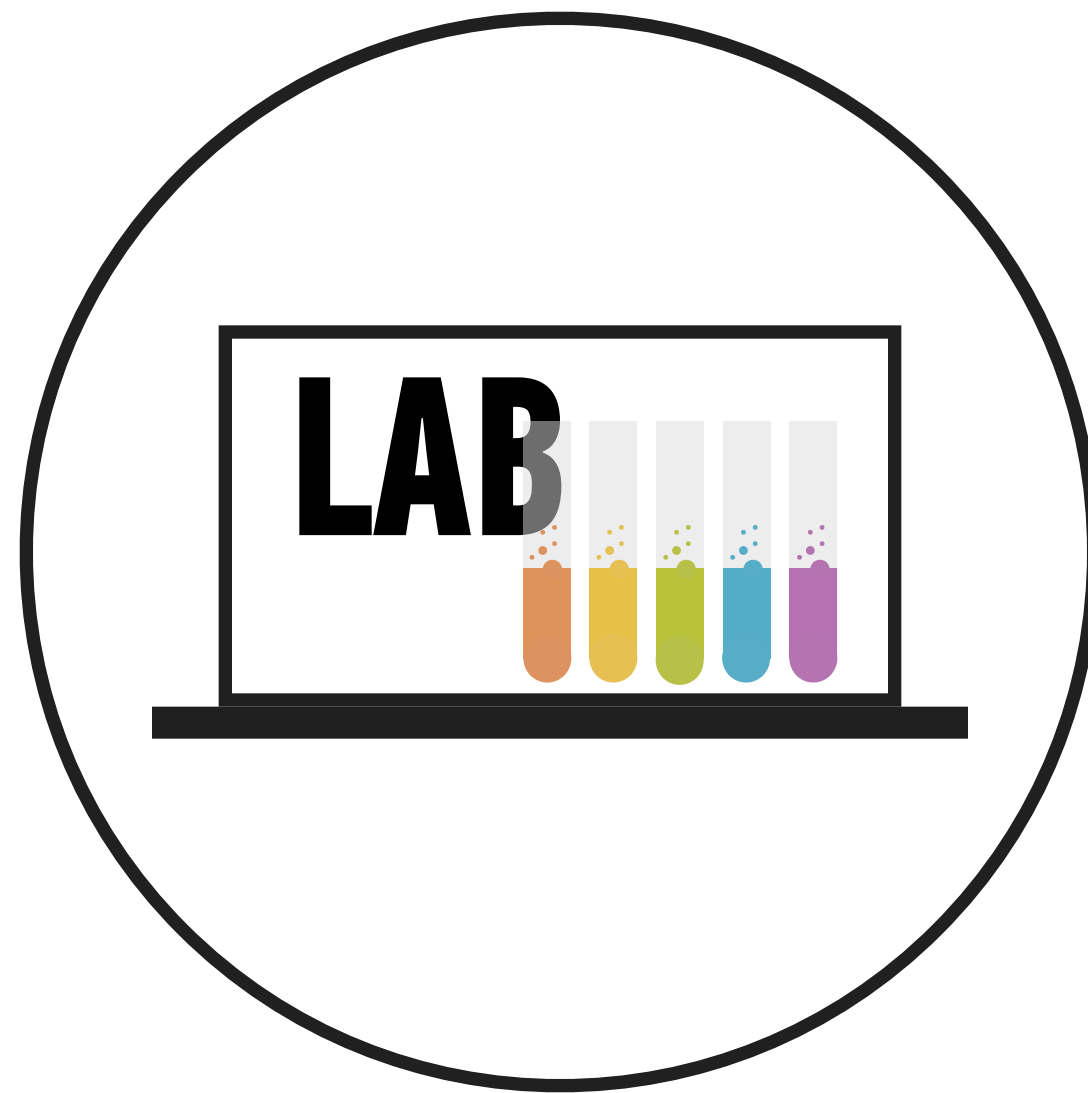
Final Project proposal due next week!

Objectives:

- » Demonstrate understanding of all topics covered during this course.
- » Apply knowledge gained during this course by building a web application from the ground up.

Requirements:

- » `final_project_requirements.md`



Add Rock Paper Scissors to Games on Rails